217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT – REVISED

PERMITTEE

Nu-Art
Attn: James Motz
6247 West 74th Street
Bedford Park, Illinois 60499

Application No.: 00010046 I.D. No.: 031012AGH
Applicant's Designation: NON-HEATLITHPRS Date Received: November 2, 2005
Subject: Non-Heat Set Lithographic Presses
Date Issued: January 25, 2006 Expiration Date: July 11, 2008
Location: 6247 West 74th Street, Bedford Park

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 2 non-heat set sheet-fed offset lithographic presses, 32 non-heat set sheet fed lithographic presses, 15 non-heat set sheet fed lithographic presses with thermography units, and lead melting furnace pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This federally enforceable state operating permit is issued:

   a. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for volatile organic material (VOM), 25 tons/year of combined hazardous air pollutants (HAPs), and 10 tons/year of each single HAP). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

   b. To limit the emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.

   c. Prior to initial issuance, a draft of this permit has undergone a public notice and comment period.

   d. This permit supersedes all operating permits issued for this location.

2a. Source wide emissions of volatile organic material (VOM) and operation of the 2 non-heat set sheet fed offset lithographic presses, 32 non-heat set sheet fed lithographic presses, and 15 non-heat set sheet fed lithographic presses with thermography units shall not exceed the following limits:

IMPRINTING OPERATION

Material	VOM Usage (Tons/Mo)	VOM Usage (Tons/Yr)	% Retention	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Inks	0.63	6.25	95	0.04	0.32
Fountain Solution	0.02	0.18	--	0.02	0.18
Cleaning Solution	0.75	7.50	--	0.75	7.50
			Totals	0.80	8.00

MANUFACTURING OPERATION

Material	VOM Usage (Tons/Mo)	VOM Usage (Tons/Yr)	% Retention	VOM Emissions (Tons/Mo)	VOM Emissions (Tons/Yr)
Inks	1.5	14.5	95	0.08	0.73
Fountain Solution	0.1	1.1	--	0.10	1.10
Cleaning Solution	1.0	9.8	--	0.98	9.80
			Totals	1.16	11.63

These limits define the potential emissions of VOM and are based on maximum material usage, maximum VOM content, and 95 percent retention of VOM in the inks. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. This permit is issued based on emissions from the manufacturing area remaining less than permitted emission limits from the replacement of 2 non-heat set offset lithographic printing presses.

3. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

4. This permit is issued based on negligible emissions of particulate matter and volatile organic material from the lead melting furnace. For this purpose emissions of each contaminant, shall not exceed nominal emission rates of 0.05 lb/hr and 0.22 ton/yr.

5. The Permittee must comply with the following emission limitations and control requirements for the non-heat set sheet fed lithographic printing lines, pursuant to 35 Ill. Adm. Code 218.407 thru 218.411. On and after March 15, 1996, the Permittee shall not:

   a. Cause or allow the operation of any sheet-fed offset lithographic printing line unless:

i. The VOM content of the as-applied fountain solution is 5 percent or less, by volume; or

ii. The VOM content of the as-applied fountain solution is 8.5 percent or less, by volume, and the temperature of the fountain solution is maintained below 15.6°C (60°F), measured at the reservoir or the fountain tray;

b. Cause or allow the use of a cleaning solution on any lithographic printing line unless:

i. The VOM content of the as-used cleaning solution is less than or equal to 30 percent, by weight; or

ii. the VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);

c. Cause or allow VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line to be kept, stored or disposed of in any manner other than in closed containers.

6. Testing to demonstrate compliance with the requirements of Condition 5 shall be conducted by the owner or operator within 90 days after a request by the Illinois EPA. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Illinois EPA in writing 30 days in advance of conducting such testing to allow the Illinois EPA to be present during such testing.

7. Testing to demonstrate compliance with the VOM content limitations in Conditions 5(a) and (b)(i) shall be conducted upon request of the Illinois EPA, as follows:

a. The applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) shall be used; provided, however, Method 24, incorporated by referenced at Section 218.112, shall be used to demonstrated compliance; or

b. The manufacturer’s specifications for VOM content for fountain solution additives, cleaning solvents, and inks may be used if such manufacturer’s specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a); provided, however, Method 24 shall be used to determined compliance.

8. Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110.

9a. The owner or operator of any lithographic printing line(s) relying on the temperature of the fountain solution to demonstrate compliance shall install, maintain, and continuously operate a temperature monitor of the fountain solution in the reservoir or fountain tray, as applicable.

b. The temperature monitor must be capable of reading with an accuracy of 0.3°C or 0.5°F, and must be attached to an automatic, continuous recording device such as a strip charge, recorder, or computer, with at least the same accuracy, that is installed, calibrated and maintained in accordance with the manufacturer's specifications. If the automatic, continuous recording device malfunctions, the owner or operator shall record the temperature of the fountain solution at least once every two operating hours. The automatic, continuous recording device shall be repaired or replaced as soon as practicable.

10. The owner or operator of the lithographic printing line(s) shall:

a. For a fountain solution to which VOM is not added automatically:

i. Maintain records of the VOM content of the fountain solution in accordance with Condition 12(b)(iii); or

ii. Take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determined compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:

A. With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications, against measurements performed to determined compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or

B. With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions

containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;

b. For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications.

11a. The owner or operator of any lithographic printing line relying on the VOM content of the cleaning solution to comply with Condition 5(b)(i) must:

i. For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):

A. Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and

B. Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with Condition 5(b)(i).

ii. For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set for in Condition 13(b).

b. The owner or operator of any lithographic printing line relying on the vapor pressure of the cleaning solution to comply with Condition 5(b)(ii) must keep records for such cleaning solutions used on any such line(s) as set forth in Condition 13(b)(iii).

12. The Permittee shall:

a. By March 15, 1996, and upon initial start-up of a new lithographic printing line, certify to the Illinois EPA that fountain solutions used on each lithographic printing line will be in compliance with the applicable VOM content limitation. Such certification shall include:

i. Identification of each lithographic printing line at the source, by type, e.g., heat set web offset, non-heat set web offset, or sheet-fed offset;

ii. Identification of each centralized fountain solution reservoir and each lithographic printing line that it serves;

iii. The VOM content limitation with which each fountain solution will comply;

iv. Initial documentation that each type of fountain solution will comply with the applicable VOM content limitation, including copies of manufacturer's specifications, test results, if any, formulation data and calculations;

v. Identification of the method that will be used to demonstrate continuing compliance with the applicable limitation, e.g., a refractometer, hydrometer, conductivity meter, or recordkeeping procedures with detailed description of the compliance methodology; and

vi. A sample of the records that will be kept from Condition 12(b).

b. On and after March 15, 1996, collect and record the following information for each fountain solution:

i. The name and identification of each batch of fountain solution prepared for use on one or more lithographic printing lines, the lithographic printing line(s) or centralized reservoir using such batch of fountain solution, and the applicable VOM content limitation for the batch;

ii. If an owner or operator uses a hydrometer, refractometer, or conductivity meter to demonstrate compliance with applicable VOM content limit in Condition 5(a) or (b)(i):

A. The date and time of preparation, and each subsequent modification, of the batch;

B. The results of each measurement taken in accordance with Condition 10;

C. Documentation of the periodic calibration of the meter in accordance with the manufacturer's specifications, including date and time of calibration, personnel conducting, identity of standard solution, and resultant reading; and

D. Documentation of the periodic temperature adjustment of the meter, including date and time of adjustment, personnel conducting and results;

iii. If the VOM content of the fountain solution is determined from Condition 10(a)(i), for each batch of as-applied fountain solution:

A. Date and time of preparation and each subsequent modification of the batch;

B. Volume and VOM content of each component used in, or subsequently added to, the fountain solution batch;

C. Calculated VOM content of the as-applied fountain solution; and

D. Any other information necessary to demonstrate compliance with the applicable VOM content limits in Condition 5(a) and (b)(i).

iv. If the owner or operator relies on the temperature of the fountain solution to comply with the requirements in Condition 5(a)(ii):

A. The temperature of the fountain solution at each printing line, as monitored in accordance with Condition 9; and

B. A maintenance log for the temperature monitoring devices and automatic, continuous temperature recorders detailing all routine and non-routine maintenance performed, including dates and duration of any outages.

c. Notify the Illinois EPA in writing of any violation of Condition 5 within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation; and

d. If changing its method of demonstrating compliance with the applicable VOM content limitations in Condition 5, or changing the method of demonstrating compliance with the VOM content limitations for fountain solutions in Conditions 6, 7, and 8, certify compliance for such new method(s) in accordance with Condition 12(a) within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Condition 5.

13. For lithographic printing line cleaning operations, an owner or operator of a lithographic printing line subject to the requirements of Condition 5:

a. By March 15, 1996, or upon initial start-up of a new lithographic printing line, certify to the Illinois EPA that all cleaning solutions, and the handling of cleaning materials, will be in compliance with the requirements of Conditions 5(b)(i) or 5(b)(ii) and 5(c), and such certification shall also include:

i. Identification of each VOM-containing cleaning solution used on each lithographic printing line;

ii. The limitation with which each VOM-containing cleaning solution will comply, i.e., the VOM content or vapor pressure;

iii. Initial documentation that each VOM-containing cleaning solution will comply with the applicable limitation, including copies of manufacturer's specifications, test results, if any, formulation data and calculations;

iv. Identification of the method that will be used to demonstrate continuing compliance with the applicable limitations;

v. A sample of the records that will be kept from Condition 13(b).

vi. A description of the practices that assure that VOM-containing cleaning materials are kept in closed containers;

b. On and after March 15, 1996, collect and record the following information for each cleaning solution used on each lithographic printing line:

i. For each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Condition 5(b)(i) and which is prepared at the source with automatic equipment:

A. The name and identification of each cleaning solution;

B. The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Condition 7;

C. Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning

solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

D. The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

E. The VOM content of the as-used cleaning solution, with supporting calculations; and

F. A calibration log for the automatic equipment, detailing periodic checks;

ii. For each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Condition 5(b)(i) and which is not prepared at the source with automatic equipment:

A. The name and identification of each cleaning solution;

B. Date and time of preparation, and each subsequent modification, of the batch;

C. The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Condition 7;

D. The total amount of each cleaning solvent and water (or other non-VOM) used to prepared the as-used cleaning solution; and

E. The VOM content of the as-used cleaning solution, with supporting calculations;

iii. For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Condition 5(b)(ii):

A. The name and identification of each cleaning solution;

B. Date and time of preparation, and each subsequent modification, of the batch;

C. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Condition 8;

D. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and

E. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Condition 8;

iv. The date, time and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed contains, with descriptions of actual practice and corrective action taken, if any;

c. On and after Mach 15, 1996, notify the Illinois EPA in writing of any violation of Condition 5 within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation; and

d. If changing its method of demonstrating compliance with the requirements of Condition 5(b), or changing between automatic and manual methods of preparing cleaning solutions, certify compliance for such new method in accordance with Condition 13(a), within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Condition 5(b).

14. The Permittee shall maintain monthly records of the following items:

a. Amount of each ink, fountain solution, and cleaning solvent used in the imprinting operation (tons/month and tons/year);

b. Amount of each ink, fountain solution, and cleaning solvent used in the manufacturing operation (tons/month and tons/year);

c. VOM and HAP content of each ink, fountain solution, and cleaning solvent used (lb VOM/gallon or percent weight); and

d. Detailed calculations of VOM and HAP emissions (tons/month and tons/year).

15. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

16. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report

shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

17. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

Please note that three non-heatset web offset lithographic presses have been correctly referenced and included in the total of 32 non-heatset sheet fed lithographic presses as requested in the application.

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RBS:psj

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from lithographic printing presses operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is handling approximately 40 tons per year of VOM. The resulting maximum emissions are below the levels, (e.g., 100 tons/year of VOM, 25 tons/year of combined HAPs and 10 tons/year of each single HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

		HAPs		
Material	VOM (Tons/Yr)	Combined (Tons/Yr)	Single (Tons/Yr)	PM (Tons/Yr)
Inks	1.05			
Fountain Solution	1.28			
Cleaning Solution	17.30			
Lead Melting	0.22			0.22
Totals	19.90	< 25	< 10	0.22

RBS:00010046:psj